



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

DECEMBER 01, 2000

PTAS

MARSHALL, O'TOOLE, GERSTEIN ET AL
DAVID A. GASS
6300 SEARS TOWER
233 SOUTH WACKER DRIVE
CHICAGO, IL 60606-6402



101485887A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/25/2000

REEL/FRAME: 011139/0625
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNEE:

ALITALO, KARI

DOC DATE: 01/26/2000

ASSIGNEE:

KARKKAINEN, MARIKA

DOC DATE: 01/25/2000

ASSIGNEE:

HELSINKI UNIVERSITY LICENSING LTD.

OY.

VIIINKAARI 6

FIN-00710 HELSINKI, FINLAND

SERIAL NUMBER: 09375248

FILING DATE: 08/16/1999
PATENT NUMBER:

ISSUE DATE:

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "SCREENING AND THERAPY FOR LYMPHATIC DISORDERS INVOLVING THE FLT4 RECEPTOR TYROSINE KINASE (VEGFR-3)," the specification of which was filed on August 16, 1999, as Application Serial No. 09/375,248. I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

(Application Serial Number)	NONE (Country)	(Day/Month/Year Filed)	Priority Claimed <input type="checkbox"/> <input checked="" type="checkbox"/>
			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

(Application Serial Number)	NONE (Day/Month/Year Filed)
-----------------------------	--------------------------------

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) or PCT international application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior application(s) in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PCT/US99/06133 (Application Serial Number)	26 March 1999 (Day/Month/Year Filed)	Pending (Status-Patented, Pending or Abandoned)
---	---	--

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: I hereby appoint as my attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Alvin D. Shulman (19,412)
 Allen H. Gerstein (22,218)
 Nate F. Scarpelli (22,320)
 Edward M. O'Toole (22,477)
 Michael F. Borun (25,447)
 Trevor B. Joike (25,542)
 Timothy J. Vezeau (26,348)

Carl E. Moore, Jr. (26,487)
 Richard H. Anderson (26,526)
 Patrick D. Ertel (26,877)
 James P. Zeller (28,491)
 William E. McCracken (30,195)
 Richard A. Schnurr (30,890)
 Anthony Nimmo (30,920)

Christine A. Dudzik (31,245)
 Jeffrey S. Sharp (31,879)
 Martin J. Hirsch (32,237)
 James J. Napoli (32,361)
 Richard M. La Barge (32,254)
 Karl A. Vick (33,288)
 Li-Hsien Rin-Laures, M.D. (33,547)

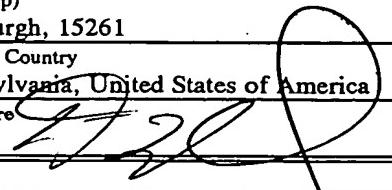
Douglass C. Hochstetler (33,710)
 Robert M. Gerstein (34,824)
 David W. Clough (36,107)
 Richard A. Brandon (37,051)
 Roger A. Heppermann (37,641)
 David A. Gass (38,153)
 Jill E. Uhl (43,213)

Send correspondence to: David A. Gass

FIRM NAME	PHONE NO.	STREET	CITY & STATE	ZIP CODE
Marshall, O'Toole, Gerstein, Murray & Borun	312-474-6300	6300 Sears Tower 233 South Wacker Drive	Chicago, Illinois	60606-6402

Full Name of First or Sole Inventor Robert E. FERRELL	Citizenship U.S.
(This box intentionally left blank)	Post Office Address - Street University of Pittsburgh, Department of Human Genetics Graduate School of Public Health A300 Crabtree Hall, 130 Desoto Street
Residence Pittsburgh	City (Zip) Pittsburgh, 15261
Residence State or Country Pennsylvania, United States of America	State or Country Pennsylvania, United States of America
Date <input checked="" type="checkbox"/> 10/12/99	Signature 

Second Joint Inventor, if any Kari ALITALO	Citizenship Finland
(This box intentionally left blank)	Post Office Address - Street University of Helsinki, Haartman Institute. Molecular/Cancer Biology Laboratory P.O. Box 21 (Haartmaninkatu 3)
Residence Helsinki	City (Zip) FIN-00014 Helsinki
State or Country Finland	State or Country Finland
Date <input checked="" type="checkbox"/>	Signature 

Third Joint Inventor, if any David N. FINEGOLD	Citizenship U.S.
(This box intentionally left blank)	Post Office Address - Street University of Pittsburgh, Department of Human Genetics Graduate School of Public Health A300 Crabtree Hall, 130 Desoto Street
Residence Pittsburgh	City (Zip) Pittsburgh, 15261
State or Country Pennsylvania, United States of America	State or Country Pennsylvania, United States of America
Date <input checked="" type="checkbox"/> 10/12/99	Signature 

Fourth Joint Inventor, if any Marika KARKKAINEN	Citizenship Finland
(This box intentionally left blank)	Post Office Address - Street University of Helsinki, Haartman Institute Molecular/Cancer Biology Laboratory P.O. Box 21 (Haartmaninkatu 3)
Residence Helsinki	City (Zip) FIN-00014 Helsinki
State or Country Finland	State or Country Finland
Date <input checked="" type="checkbox"/>	Signature 

DECLARATION FOR PATENT APPLICATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that my residence, post office address and citizenship are as stated below next to my name; I believe that I am an original, first and joint inventor of the subject matter which is claimed and for which a patent is sought on the invention entitled "SCREENING AND THERAPY FOR LYMPHATIC DISORDERS INVOLVING THE FLT4 RECEPTOR TYROSINE KINASE (VEGFR-3)," the specification of which was filed on August 16, 1999, as Application Serial No. 09/375,248. I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment(s) referred to above. I acknowledge the duty to disclose to the Patent and Trademark Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56.

I hereby claim foreign priority benefits under 35 U.S.C. §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application(s) for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

			Priority Claimed
NONE		(Day/Month/Year Filed)	<input type="checkbox"/> <input checked="" type="checkbox"/>
(Application Serial Number)	(Country)		Yes No

I hereby claim the benefit under 35 U.S.C. §119(e) of any United States provisional application(s) listed below:

NONE		(Day/Month/Year Filed)
(Application Serial Number)		

I hereby claim the benefit under 35 U.S.C. §120 of any United States application(s) or PCT international application(s) designating the United States of America listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior application(s) in the manner provided by the first paragraph of 35 U.S.C. §112, I acknowledge the duty to disclose to the Office all information known to me to be material to patentability as defined in 37 C.F.R. §1.56 which occurred between the filing date of the prior application(s) and the national or PCT international filing date of this application:

PCT/US99/06133 (Application Serial Number)	26 March 1999 (Day/Month/Year Filed)	Pending (Status-Patented, Pending or Abandoned)
---	---	--

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under 18 U.S.C. §1001 and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

POWER OF ATTORNEY: I hereby appoint as my attorneys, with full powers of substitution and revocation, to prosecute this application and transact all business in the Patent and Trademark Office connected therewith:

Alvin D. Shulman (19,412)
 Allen H. Gerstein (22,218)
 Nate F. Scarpelli (22,320)
 Edward M. O'Toole (22,477)
 Michael F. Borun (25,447)
 Trevor B. Joike (25,542)
 Timothy J. Vezeau (26,348)

Carl E. Moore, Jr. (26,487)
 Richard H. Anderson (26,526)
 Patrick D. Ertel (26,877)
 James P. Zeller (28,491)
 William E. McCracken (30,195)
 Richard A. Schnurr (30,890)
 Anthony Nimmo (30,920)

Christine A. Dudzik (31,245)
 Jeffrey S. Sharp (31,879)
 Martin J. Hirsch (32,237)
 James J. Napoli (32,361)
 Richard M. La Barge (32,254)
 Karl A. Vick (33,288)
 Li-Hsien Rin-Lauree, M.D. (33,547)

Douglass C. Hochstetler (33,710)
 Robert M. Gerstein (34,824)
 David W. Clough (36,107)
 Richard A. Brandon (37,051)
 Roger A. Heppermann (37,641)
 David A. Gass (38,153)
 Jill E. Uhl (43,213)

Send correspondence to: David A. Gass

FIRM NAME	PHONE NO.	STREET	CITY & STATE	ZIP CODE
Marshall, O'Toole, Gerstein, Murray & Borun	312-474-6300	6300 Sears Tower 233 South Wacker Drive	Chicago, Illinois	60606-6402

Full Name of First or Sole Inventor Robert E. FERRELL	Citizenship U.S.
(This box intentionally left blank)	Post Office Address - Street University of Pittsburgh, Department of Human Genetics Graduate School of Public Health A300 Crabtree Hall, 130 Desoto Street
Residence Pittsburgh	City (Zip) Pittsburgh, 15261
Residence State or Country Pennsylvania, United States of America	State or Country Pennsylvania, United States of America
Date <input checked="" type="checkbox"/>	Signature <input checked="" type="checkbox"/>

Second Joint Inventor, if any Kari ALITALO	Citizenship Finland
(This box intentionally left blank)	Post Office Address - Street University of Helsinki, Haartman Institute Molecular/Cancer Biology Laboratory P.O. Box 21 (Haartmaninkatu 3)
Residence Helsinki	City (Zip) FIN-00014 Helsinki
State or Country Finland	State or Country Finland
Date <input checked="" type="checkbox"/> <i>October 7, 1999</i>	Signature <input checked="" type="checkbox"/> <i>Jani Oinala</i>

Third Joint Inventor, if any David N. FINEGOLD	Citizenship U.S.
(This box intentionally left blank)	Post Office Address - Street University of Pittsburgh, Department of Human Genetics Graduate School of Public Health A300 Crabtree Hall, 130 Desoto Street
Residence Pittsburgh	City (Zip) Pittsburgh, 15261
State or Country Pennsylvania, United States of America	State or Country Pennsylvania, United States of America
Date <input checked="" type="checkbox"/>	Signature <input checked="" type="checkbox"/>

Fourth Joint Inventor, if any Marika KARKKAINEN	Citizenship Finland
(This box intentionally left blank)	Post Office Address - Street University of Helsinki, Haartman Institute Molecular/Cancer Biology Laboratory P.O. Box 21 (Haartmaninkatu 3)
Residence Helsinki	City (Zip) FIN-00014 Helsinki
State or Country Finland	State or Country Finland
Date <input checked="" type="checkbox"/> <i>October 7, 1999</i>	Signature <input checked="" type="checkbox"/> <i>Marika Karkkainen</i>

011139/0625 PAGE 2

MARY BENTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

10-12-2000



To the Honorable Commissioner of
Patents and Trademarks:
Please record the attached original
document or copy thereof.

9-25-00

101485887

1. Name of party or parties conveying an interest:

Kari Alitalo
Marika Karkkainen

2. Name and address of party or parties receiving an interest:

Name: Helsinki University Licensing Ltd. Oy.
Address: Viikinkaari 6, FIN-00710 Helsinki, Finland

3. Description of the interest conveyed:

Assignment

Other:

Merger

Change of Name

Security Agreement

Execution Date: Jan. 26, 2000; Jan. 25, 2000

4. Application number(s) or patent number(s). Additional sheet attached?

YES NO

If the document is being filed together with a new application, the execution date of the application is:

A. Patent application no.(s):

B. Patent no.(s):

09/375,248 filed Aug. 16, 1999

5. Name and address of party to whom correspondence concerning this cover sheet should be mailed:

Name: David A. Gass

Reg. No. 38,153
MARSHALL, O'TOOLE, GERSTEIN,
MURRAY & BORUN
Street Address: 6300 Sears Tower,
233 South Wacker Drive
City: Chicago
State: Illinois
Zip: 60606-6402

6. Number of applications and/or patents identified on this cover sheet:

1

7. Amount of fee enclosed or authorized to be charged:

\$ 40.00

8. Any additional required fee may be charged, or any overpayment credited to our deposit account: 13-2855

9. To the best of my knowledge and belief, the information contained on this cover sheet is true and correct and any copy submitted is a true copy of the original document.

Date: Jan. 27, 2000

David A. Gass
Reg. No. 38,153

Total number of pages including cover sheet, attachments, and document: 2

ASSIGNMENT

Serial No: 09/375,248 Title: Screening and Therapy for Lymphatic Disorders
 Filed: 28 JAN 2000 Involving the Flt4 Receptor Tyrosine Kinase (VEGFR-3)
 August 16, 1999

For ten dollars (\$10.00), and other good and valuable consideration, the receipt and sufficiency whereof are hereby acknowledged, the undersigned hereby assign to Helsinki University Licensing Ltd. Oy., Viikinkaari 6, FIN-00710 Helsinki, Finland (hereinafter "Assignee"), its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in the above-identified application for Letters Patent of the United States, and in said application and any and all other application both United States and other countries which the undersigned may file, either solely or jointly with others, on said invention or improvements, including International Patent Application No. PCT/US99/06133 and Canadian Patent Application No. 2283470, and in any and all Letters Patent of the United States and other countries, which may be obtained on any of said applications, and in any reissue or extension thereof.

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks to issue said Letters Patent of the United States to said assignee. The undersigned warrant themselves to be the owners of the interest herein assigned and to have the right to make this assignment and further warrant that there are no outstanding prior assignments, licenses, or other rights in the interest herein assigned, except in favor of Assignee.

For said consideration the undersigned hereby agree, upon the request and at the expense of said assignee, its successors and assigns, to execute any and all divisional, continuation, continuation-in-part and substitute applications for said invention or improvements, and any necessary oath or affidavit relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said assignee, its successors or assigns, may deem necessary or expedient, and for the aforesaid consideration the undersigned further agree upon the request of said assignee, its successors or assigns, in the event of any application or Letters Patent assigned herein becoming involved in Interference, to cooperate to the best of the ability of the undersigned with said assignee, its successors or assigns, in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon request, any and all affirmative acts to obtain said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in said assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by said assignee, its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

MARSHALL, O'TOOLE, GERSTEIN, MURRAY & BORUN, 6300 Sears Tower, 233 South Wacker Drive, Chicago, Illinois 60606-6402

Kari Alitalo
 Name

Witnesses:

Marika Karkkainen
 Name

Re. 16. 1. 2000
 Date

John J. O'Toole
 Name

Witnesses:

John J. O'Toole
 Name

Re. 16. 1. 2000
 Date

John J. O'Toole
 Name



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

DECEMBER 01, 2000

PTAS

MARSHALL, O'TOOLE, GERSTEIN, ET AL.
DAVID A. GASS
233 SOUTH WACKER DRIVE
6300 SEARS TOWER
CHICAGO, IL 60606-6402



10148588A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/25/2000

REEL/FRAME: 011139/0619
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

FERRELL, ROBERT E.

DOC DATE: 01/31/2000

ASSIGNEE:

UNIVERSITY OF PITTSBURGH - OF THE
COMMONWEALTH SYSTEM OF HIGHER
EDUCATION
200 GSAC THACKERAY AND O'HARA
STREETS
UNIVERSITY OF PITTSBURGH
PITTSBURGH, PENNSYLVANIA 15260

DOC DATE: 01/31/2000

SERIAL NUMBER: 09375248

FILING DATE: 08/16/1999

PATENT NUMBER:

ISSUE DATE:

RICK MALLEY

DEC 2000

MARSHALL O'TOOLE

011139/0619 PAGE 2

JEEVON JONES, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

PATENTS ONLY

To the Honorable Commissioner of
Patents and Trademarks:
Please record the attached original
document or copy thereof.

9.25.00

1. Name of party or parties conveying an interest:

Robert E. Ferrell
David N. Finegold

2. Name and address of party or parties receiving an interest:

Name: University of Pittsburgh - of the Commonwealth System of Higher Education
Address: 200 GSAC Thackeray and O'Hara Streets, University of Pittsburgh
City: Pittsburgh
State: Pennsylvania
Zip: 15260

3. Description of the interest conveyed:

Assignment

Merger

Change of Name

Security Agreement

Execution Date: Jan. 31, 2000; Jan. 31, 2000

10-12-2000

Other:



101485888

4. Application number(s) or patent number(s). Additional sheet attached?
YES NO

If the document is being filed together with a new application, the execution date of the application is:

A. Patent application no.(s):

B. Patent no.(s):

09/375,248 filed Aug. 16, 1999

5. Name and address of party to whom correspondence concerning this cover sheet should be mailed:

Name: David A. Gass
Reg. No. 38,153
MARSHALL, O'TOOLE, GERSTEIN,
MURRAY & BORUN
Street Address: 6300 Sears Tower,
233 South Wacker Drive
City: Chicago
State: Illinois
Zip: 60606-6402

6. Number of applications and/or patents identified on this cover sheet:

1

7. Amount of fee enclosed or authorized to be charged:

\$ 40.00

8. Any additional required fee may be charged, or any overpayment credited to our deposit account: 13-2855

9. To the best of my knowledge and belief, the information contained on this cover sheet is true and correct and any copy submitted is a true copy of the original document.

Date: September 20, 2000

David A. Gass

Reg. No. 38,153

(10/11/2000 MTHAI1 00000254 09375248)

01 FC:581

Total number of pages including cover sheet, attachments, and document: 3

40.00 0P

LNU 5589.1

ASSIGNMENT

Serial No: 09/375,248

Filed: August 16, 1999

Title: Screening and Therapy for Lymphatic Disorders Involving the Flt4 Receptor Tyrosine Kinase (VEGFR-3)

For ten dollars (\$10.00), and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby assign to University of Pittsburgh - of the Commonwealth System of Higher Education, 200 GSCC Thackeray and O'Hara Streets, University of Pittsburgh, Pittsburgh, Pennsylvania 15260 (hereinafter "Assignee"), its successors and assigns, the entire right, title and interest in the invention or improvements of the undersigned disclosed in the above-identified application for Letters Patent of the United States, and in said application and any and all other applications, both United States and other countries, which the undersigned has filed or may file, either solely or jointly with others, on said invention or improvements, including International Patent Application No. PCT/US99/06133 and Canadian Patent Application No. 2283470, and in any and all Letters Patent of the United States and other countries, which may be obtained on any of said applications, and in any reissue or extension thereof.

The undersigned hereby authorize and request the Commissioner of Patents and Trademarks of the United States to issue said Letters Patent to said Assignee.

The undersigned warrant themselves to be the owners of the interest herein assigned and to have the right to make this assignment and further warrant that there are no outstanding prior assignments, licenses, or other rights in the interest herein assigned, except in favor of Assignee.

For said consideration the undersigned hereby agree, upon the request and at the expense of said Assignee, its successors and assigns, to execute any and all divisional, continuation, continuation-in-part and substitute applications for said invention or improvements, and any necessary oath or affidavit relating thereto, and any application for the reissue or extension of any Letters Patent that may be granted upon said application, and any and all applications and other documents for Letters Patent in foreign countries on said invention or improvements, that said Assignee, its successors or assigns, may deem necessary or expedient, and for said consideration the undersigned further agree upon the request of said Assignee, its successors or assigns, in the event of any application or Letters Patent assigned herein becoming involved in Interference, to cooperate to the best of the ability of the undersigned with said Assignee, its successors or assigns, in the matters of preparing and executing the preliminary statement and giving and producing evidence in support thereof, the undersigned hereby agreeing to perform, upon

request, any and all affirmative acts to obtain said Letters Patent, both United States and foreign, and vest all rights therein hereby conveyed in said Assignee, its successors and assigns, whereby said Letters Patent will be held and enjoyed by said Assignee, its successors and assigns, to the full end of the term for which said Letters Patent may be granted as fully and entirely as the same would have been held and enjoyed by the undersigned if this assignment and sale had not been made.

WITNESS my hand this 31st day of January, of the year 2000.

State of _____
County of _____ } ss.


Robert E. Ferrell

On this _____ day of _____, _____, before me, a Notary Public in and for the County and State aforesaid, appeared Robert E. Ferrell, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

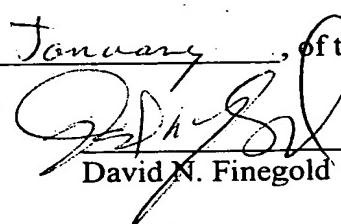
WITNESS my hand and seal the same day and year last above given.

My Commission Expires: _____

Notary Public

WITNESS my hand this 31st day of January, of the year 2000.

State of _____
County of _____ } ss.


David N. Finegold

On this _____ day of _____, _____, before me, a Notary Public in and for the County and State aforesaid, appeared David N. Finegold, to me personally known to be the same person whose name is subscribed to the foregoing instrument, and acknowledged that he executed said instrument as his free and voluntary act and for the uses and purposes therein expressed.

WITNESS my hand and seal the same day and year last above given.

My Commission Expires: _____

Notary Public



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

DECEMBER 01, 2000

PTAS

MARSHALL, O'TOOLE, GERSTEIN, ET AL.
DAVID A. GASS
6300 SEARS TOWER
233 SOUTH WACKER DRIVE
CHICAGO, IL 60606-6402



101485886A

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 09/25/2000

REEL/FRAME: 011139/0607
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

HELSINKI UNIVERSITY LICENSING LTD. DOC DATE: 02/03/2000
OY.

ASSIGNEE:

LUDWIG INSTITUTE FOR CANCER
RESEARCH
605 THIRD AVENUE
NEW YORK, NEW YORK 10158

SERIAL NUMBER: 09375248

FILING DATE: 08/16/1999
PATENT NUMBER: ISSUE DATE:

MAURICE CARTER, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

PRIMUS/MLB

DEC 2000

MARSHALL O'TOOLE

10-12-2000



101485886

To the Honorable Commissioner of
Patents and Trademarks:Please record the attached original
document or copy thereof.

9.25·00

1. Name of party or parties conveying an interest:
Helsinki University Licensing Ltd. Oy.

2. Name and address of party or parties receiving an interest:
Name: Ludwig Institute for Cancer Research, a Swiss not-for-profit corporation
Address: 605 Third Avenue
City: New York
State: New York
Zip: 10158

3. Description of the interest conveyed:

- Assignment (50% interest)
 Merger
 Change of Name
 Security Agreement

Other:

Execution Date: Feb. 3, 2000

4. Application number(s) or patent number(s). Additional sheet attached?
YES _____ NO X

If the document is being filed together with a new application, the execution date of the application is:

A. Patent application no.(s):

B. Patent no.(s):

09/375,248 filed Aug. 16, 1999

5. Name and address of party to whom correspondence concerning this cover sheet should be mailed:

Name: David A. Gass
 Reg. No. 38,153
 MARSHALL, O'TOOLE, GERSTEIN,
 MURRAY & BORUN
 Street Address: 6300 Sears Tower,
 233 South Wacker Drive
 City: Chicago
 State: Illinois
 Zip: 60606-6402

6. Number of applications and/or patents identified on this cover sheet:

1

7. Amount of fee enclosed or authorized to be charged:

\$ 40.00

8. Any additional required fee may be charged, or any overpayment credited to our deposit account: 13-2855

9. To the best of my knowledge and belief, the information contained on this cover sheet is true and correct and any copy submitted is a true copy of the original document.

Date: Sept 20, 2000

David A. Gass
 Reg. No. 38,153

(10/11/2000 MTHAI1 00000256 09375248)

01 FC:581

Total number of pages, including cover sheet, attachments, and document: 3

Atty. Docket No.: 28967/35255A

ASSIGNMENT

WHEREAS, Helsinki University Licensing Ltd. Oy., Viikinkaari 6, FIN-00710 Helsinki, Finland (hereinafter HUL), its successors and assigns, is the assignee of the entire right, title and interest in the invention or improvements of Kari Alitalo and Marika Karkkainen relating to screening and therapy for lymphatic disorders involving the Flt-4 receptor tyrosine kinase (VEGFR-3) disclosed in U.S. Patent Application Serial No. 09/375,248 and in International Patent Application No. PCT/US99/06133 and in Canadian Patent Application No. 2283470, and in said applications and any and all other applications, both United States and other countries which Kari Alitalo and Marika Karkkainen may file, either solely or jointly with others, on said invention or improvements, and in any and all Letters Patent of the United States and other countries, which may be obtained on any of said applications, and in any reissue or extension thereof; and

WHEREAS, for ten dollars (\$10.00), and other good and valuable consideration, the sufficiency of which is hereby acknowledged, HUL has agreed to share ownership of its interest in the aforementioned invention, improvements, applications, patents, reissues, extensions, and the like on a 50%/50% equal basis with Ludwig Institute for Cancer Research, a Swiss not-for-profit corporation, having offices at 605 Third Avenue, New York, New York 10158 (hereinafter LICR);

NOW, THEREFORE, HUL hereby assigns to LICR a fifty percent (50%) interest in the patent applications identified in the following LIST OF PATENTS PROPERTIES, and in all Letters Patent of the United States and other countries, which may be obtained on any of said patent applications, and in any reissue or extension thereof.

LIST OF PATENT PROPERTIES

<u>Application No.</u>	<u>Filing Date</u>	<u>Title</u>
U.S.S.N. 09/375,248	08/16/99	Screening and Therapy for Lymphatic Disorders Involving the Flt-4 Receptor Tyrosine Kinase (VEGFR-3)
PCT/US99/06133	03/26/99	Screening and Therapy for Lymphatic Disorders Involving the Flt-4 Receptor Tyrosine Kinase (VEGFR-3)
Canada 2283470	09/29/99	Screening and Therapy for Lymphatic Disorders Involving the Flt-4 Receptor Tyrosine Kinase (VEGFR-3)

WITNESS my hand this 13 day of February, year 2000.

Witnesses:

Helsinki University Licensing Ltd. Oy.

1) Taina Saks
Name: TAINA SAKSA

Eija Pöytäkivi
Eija Pöytäkivi
Managing Director

2) Maria Jernström
Name: MARIA JERNSTRÖM